

The world's first circular  
Type IIR surgical mask



# Circular Type IIR surgical mask

Certified according to EN14683:2019+AC:2019  
CE marked



## Product information Company and background

The company GMAF Circular Material ApS was established by the commercial foundation Global Material & Asset Fond on 6 April 2020, in the middle of the corona pandemic. The need for securing a national emergency response for the production of protective equipment was defined by the supreme political body.

As the first manufacturer in the world, we have developed a circular Type IIR surgical mask where the material can be returned after decontamination. The material is processed and will eventually be able to be used for masks again.

The development has taken place in a PPP (public-private partnership) with the Capital Region of Denmark and the National Operational Staff (NOST) for the Danish health system. Millions of masks are produced every month, enough to supply the entire Scandinavian market with a uniform quality that benefits people and the environment.

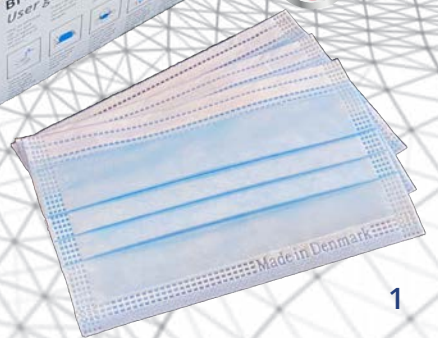
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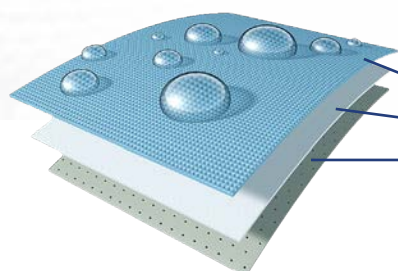


*We support the UN SDG's*



## Material and processing

The material consists of a 3-ply polypropylene (PP) nonwoven with an active melt blown filter.



### Three layers for safety and comfort

1. Outer layer (blue) protects against splashes from liquids
2. The middle layer filters by inhalation and exhalation
3. The layer next to the facial skin is soft and comfortable

## Comfort

User tests at Rigshospitalet have confirmed a good and comfortable fit. The flat ear band is particularly flexible and soft. It increases comfort while minimizing discomfort at prolonged use. The double nose adjustment strip ensures a good fit and minimizes fog on glasses and minimizing air from passing by.



## Compliance with standards and CE marking

All necessary tests in relation to EN14683: 2019 + AC: 2019 have been carried out, completed and approved by an accredited test institute. Main results are shown in *Table 1*. Test basis and EU declaration of conformity for CE marking can be requested. Shelf time 2 years (exp. date on box).

Test	Type IIR requirement DS/EN 14683:2019	GMAF CM Type IIR product no. 10001
Bacterial filtration efficacy (BFE) in %	≥ 98	99,82
Breathability - differential pressure Unit in Pa/cm <sup>2</sup>	< 60	27,04
Splash resistance Unit for pressure in kPa	≥ 16,0	Test passed
Determination of a population of microorganisms Units in cfu/g	≤ 30	14,67

Table 1: requirements for the provision of Type IIR surgical masks according to DS / EN 14683:2019 + AC:2019

## Packaging and sales units

The packaging used complies with the standards and is continuously optimized in relation to the materials and purposes for use.

Description	Box	Colli	DK RH pallet	Export pallet
Antal	50 masks	27 boxes	18 colli	30 colli
Dim. (LxBxH) i cm	21,5x12x8,5	40x38x44	80x120x180	80x120x235
Weight in kg	0,5	14,7	279,6	456,0
ID	Lot no.	GS1-128 colli	GS1-128 pallet	GS1-128 pallet

